

# **ADDIE MODEL ON SOCIAL MEDIA-BASED TEACHING AND LEARNING IN CHONGQING PRIVATE SCHOOLS IN TANGSHAN PRESCHOOL TEACHERS COLLEGE**

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## **ABSTRACT**

The objectives of this research were: 1) to study the effect of the ADDIE model on social media-based teaching and learning. 2) To evaluate the effect of the ADDIE model on social media-based teaching and learning in Chongqing Private Schools in Tangshan Preschool Teachers College. The research was qualitative research. The sample consists of 364 participants. This study's questionnaire was established using Krejcie and Morgan's tables, employing purposive and straightforward random sampling techniques. The research instrument is a evaluate form of the effect of the ADDIE model on social media-based teaching and learning in Chongqing Private Schools in Tangshan Preschool Teachers College. Data were analyzed using percentage, frequency, mean, and standard deviation. The study found no significant differences in the Results demonstrated a consensus among students regarding the effectiveness of the ADDIE model in facilitating learning, with the development component identified as the only significant predictor of student satisfaction. effectiveness of the model across different genders or age groups. 2) The results of the suitability assessment and possibility of the components of The Effect of the ADDIE Model on social media-Based Teaching and Learning in Chongqing Private Schools in Tangshan Preschool Teachers College found that appropriate and feasible were at a high level.

**Keywords:** ADDIE Model, Social Media-Based, Chongqing Private Schools

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## INTRODUCTION

The digital age has brought forth the widespread application of social media in multiple facets of life, prominently in education. As global internet penetration grows, there's an increasing shift towards online learning environments, with social media platforms being pivotal. While platforms like Twitter and Facebook hold potential for educational discussions (Fleck & Johnson-Migalski, 2015), others such as Instagram might cause distractions due to visual content. The global narrative around social media's educational impact is marked by disparities in technological access and cultural perceptions. Developed countries, with their robust technological foundations, have smoothly integrated social media into their education systems. Conversely, many developing nations face challenges due to limited technological infrastructure. China, bridging this gap, is rapidly advancing, with cities like Shijiazhuang reflecting its blend of traditional education with modern technological approaches (Wang, 2018). China's unique stance includes not only the application of global platforms but also local ones like WeChat and Weibo. Wang's (2018) research sheds light on WeChat's facilitation of enhanced interactions between students and teachers in an English writing course. Similarly, Weibo, China's microblogging titan, holds promise in second language vocabulary acquisition (Zhang & Liang, 2017). Nevertheless, alongside these advancements, concerns about academic integrity and student privacy emerge, prompting some educational institutions to craft policies ensuring social media's responsible use.

**Focus on Innovation:** The innovative intersection here is the ADDIE model, an established instructional design framework (Dick, Carey, & Carey, 2014). This model, when amalgamated with social media platforms, could structure and elevate the digital learning experience. The ADDIE model's systematic approach, beginning from analyzing learners' needs to evaluating the effectiveness of a learning program, holds potential for a groundbreaking combination with the dynamic realm of social media.

**In Conclusion:** In the epoch of digital transformation, the pressing challenge is integrating emerging platforms like social media into education effectively. Enter the ADDIE model, an established paradigm that has been the mainstay of instructional design (Dick, Carey, & Carey, 2014). In a landscape dominated by diverse social media platforms, each with its unique ethos, the ADDIE model could serve as the structured framework that guides social media's academic integration. But the key question remains: Is the synthesis of ADDIE and social media effective, particularly for undergraduate students in Chongqing Private Schools in Tangshan Preschool Teachers College? Therefore, the crux of the problem lies in: 1) Assessing the real-world implications of the ADDIE model when used in tandem with social media for academic purposes. 2) Understanding the fine balance between engagement and distraction in such a pedagogical setting and 3) Evaluating the effectiveness of such a structured approach in delivering desired learning outcomes, while also safeguarding academic integrity and student privacy.

Given this backdrop, the proposed research will delve deep into these concerns, with the overarching objective of gleaning insights that could potentially shape the future of digital education in China, making it both efficient and effective.

## LITERATURE REVIEWS

### Concept of Social Media in Education

The widespread adoption of social media has significantly transformed communication and information dissemination globally. This change has brought about new opportunities and challenges for educators and institutions to optimize the learning experience (Gikas & Grant, 2013). One major trend is the increasing use of social media platforms for collaborative learning, enhancing communication, and promoting student engagement (Gikas & Grant, 2013). Social media tools such as Facebook, Twitter, and LinkedIn provide opportunities for learners and educators to connect, share resources, engage in discussions, and collaborate on projects in a more interactive and dynamic environment than traditional classrooms (Selwyn,

2016). These platforms facilitate the creation and dissemination of user-generated content, allowing learners to actively participate in the construction and sharing of knowledge (Veletsianos & Kimmons, 2012). Despite the potential benefits of social media in education, several challenges must be addressed. Privacy concerns are a significant issue, as many users may inadvertently share personal information or engage in behaviors that put their privacy at risk (Greenhow, Robelia, & Hughes, 2009). To mitigate these concerns, educators and institutions should develop clear guidelines and policies for social media use, ensuring students know the potential risks and best practices for online privacy. Cyberbullying is another challenge associated with social media use in education. Social media platforms' anonymity and ease of communication can lead to harassment, intimidation, and other negative behavior among users (Greenhow, Robelia, & Hughes, 2009). Educators and institutions must establish policies and procedures to prevent and address cyberbullying, creating a safe and respectful online learning environment for all students. Lastly, the potential for distraction from academic tasks is a concern when incorporating social media into educational settings. The constant stream of updates, notifications, and messages from social media platforms may lead students to spend more time on these sites rather than focusing on their studies (Junco, 2012). To address this issue, educators should carefully consider the specific learning objectives and activities associated with social media use, ensuring that the platforms are used purposefully and effectively to support learning goals.

### **The Theory of The ADDIE Model**

The recognized and utilized instructional design framework that systematically creates compelling and engaging learning experiences (Dick, Carey, & Carey, 2014). This model comprises five distinct phases, namely Analysis, Design, Development, Implementation, and Evaluation, which guide instructional designers through a comprehensive process that ensures the delivery of well-structured and meaningful learning experiences (Molenda, 2003). During the Analysis phase, instructional designers assess the learning needs and goals of the target audience, identifying any knowledge gaps or skill deficiencies that need to be addressed. This phase considers learner characteristics, contextual factors, and the desired learning outcomes. The Design phase uses the insights gathered during the Analysis phase to formulate specific learning objectives and devise a detailed plan for the overall learning experience. This includes determining the appropriate instructional methods, selecting the most suitable social media platforms, and outlining the structure and sequence of learning activities. In the Development phase, instructional designers create the learning content, develop the necessary materials or tools, and prepare the learning environment for the learners. This may involve generating multimedia content, designing interactive learning activities, or setting up online discussion forums and collaborative spaces using social media platforms. The Implementation phase sees the delivery of the social media-based learning experience to the target audience. Instructional designers and educators may facilitate online discussions, provide feedback on learners' social media content, or conduct live training sessions through social media platforms.

### **Cultural Factors**

**Communication styles:** Different cultures may have unique communication styles influence how learners and educators interact on social media platforms. For example, some cultures may favor a more formal communication style, while others may be more comfortable with informal interactions. Awareness of these differences can help educators create a learning environment accommodating various communication styles and promote engagement (Ess, 2012).

**Learning approaches:** Cultural factors can also impact the preferred learning approaches of students. For instance, learners from collectivist cultures may prefer collaborative learning experiences, while those from individualist cultures might lean towards more independent learning activities (Hofstede, 2001). Designing social media-based learning experiences that

align with the cultural values and learning preferences of the target audience can lead to more effective and engaging learning experiences.

**Cultural sensitivity:** It is crucial to be aware of cultural sensitivities when designing social media-based learning experiences. This includes avoiding stereotypes, respecting cultural norms and values, and promoting inclusivity and diversity. Creating a culturally sensitive learning environment can foster a sense of belonging and encourage active participation among learners from diverse backgrounds (Gay, 2010).

## RESEARCH METHODOLOGY

### 1) Population and Sample

This research aims to investigate undergraduate students across 12 universities, encompassing 6,574 students, located in Chongqing Private Schools in Tangshan Preschool Teachers College. The sample size for this study's questionnaire was established using Krejcie and Morgan's (Krejcie & Morgan, 1970) tables, employing purposive and straightforward random sampling techniques. Consequently, the sample size consists of 364 participants.

### 2) Data Collection

**Data Collection Tools for Quantitative Research:** The researcher used a rating scale of 5: Most Agree, Agree, moderate, Disagree, and Very Disagree; they developed an improvement from the research questionnaire Likert scale (Likert, 1932). The questionnaire is divided into 2 parts are:

**Part 1** The status of the respondents It was a multiple-choice question with 4 questions to the demographics of the respondents.

**Part 2** In this part is the study of the Impact of the ADDIE Model on the Effectiveness of social media-based Teaching and Learning in Chongqing Private Schools in Tangshan Preschool Teachers College. It is a 5-level estimation scale question asking about factors of linguistic landscape as dependent variables are divided into 3 areas as follows:

ADDIE Model

- Analysis
- Design
- Development
- Implementation
- Evaluation

**Part 3** This part examines the outcome factors of the Impact of the ADDIE Model on the Effectiveness of social media-based Teaching and Learning in Chongqing Private Schools in Tangshan Preschool Teachers College. It utilizes a 5-point assessment scale to inquire about factors that serve as independent variables and are categorized into two distinct domains.

### 3) Data Analysis

The data obtained from the questionnaire were analyzed by using a ready-made computer program divided into four parts as follows:

**Part 1** Data on respondents' status using frequency distributions and percentages.

**Part 2** The Impact of the ADDIE Model on the Effectiveness of social media-based Teaching and Learning in Chongqing Private Schools in Tangshan Preschool Teachers College. in 5 areas using mean and standard deviation (S.D.) criterion.

**Part 3** Check the regression weight of variances data on the Student Learning social media-based on learning and teaching outcomes in Chongqing Private Schools in Tangshan Preschool Teachers College.

## RESEARCH RESULTS

**Table 1** Mean Standard Deviation and Statistic Significant of the Difference in Analysis in ADDIE Model

ANALYSIS	X	S.D.	Significant	CV%	Level
The learning objectives and goals of social media-based teaching and learning are clearly defined	4.26	.621	Agree	14.58	4
Social media-based teaching and learning have thoroughly analyzed the target audience and their needs.	4.11	.715	Agree	17.40	3
The learning environment and available resources have been considered in the planning process	4.31	.621	Agree	14.41	5
The learners' characteristics, such as age, learning preferences, and prior knowledge, have been considered.	3.92	.922	Agree	23.52	2
The constraints and challenges in implementing social media-based teaching and learning have been identified and addressed.	3.93	.929	Agree	23.64	1
<b>Total</b>	<b>4.10</b>	<b>.761</b>	<b>Agree</b>		

Table 1 presents the Analysis component of the ADDIE model influencing social media-based teaching and learning in Chongqing Private Schools in Tangshan Preschool Teachers College. This analysis, evaluated using the coefficient of variation, maintains an Agree stance. Factors addressed include identifying and tackling constraints and challenges in implementing social media-based teaching and learning, considering learners' characteristics like age, learning preferences, and prior knowledge, conducting an in-depth examination of the target audience and their needs, clearly outlining the learning objectives and goals of social media-based teaching and learning, and taking into account the learning environment and available resources during the planning phase.

**Table 2** Mean Standard Deviation and Statistic Significant of the Difference in Design in the ADDIE Model

Design	X	S.D.	Significant	CV%	Level
The instructional strategies used in social media-based teaching and learning are well-planned and effective.	4.14	.811	Agree	19.59	5
The instructional materials and assessments in social media-based teaching and learning are aligned with the learning objectives.	3.92	.935	Agree	23.85	2
The design of social media-based teaching and learning materials considers various learning styles and preferences.	3.97	.905	Agree	22.80	4
The social media platforms selected for teaching and learning are suitable and accessible for the target audience.	3.91	.940	Agree	24.04	1

<b>Design</b>	<b>X</b>	<b>S.D.</b>	<b>Significant</b>	<b>CV%</b>	<b>Level</b>
The design includes clear instructions and guidance for learners to navigate and use the materials effectively.	3.93	.929	Agree	23.64	3
<b>Total</b>	<b>3.97</b>	<b>.904</b>	Agree		

Table 2 presents the Design component of the ADDIE model influencing social media-based teaching and learning in Chongqing Private Schools in Tangshan Preschool Teachers College. This analysis, evaluated using the coefficient of variation, maintains an agreed stance. The social media platforms selected for teaching and learning are suitable and accessible for the target audience, the instructional materials and assessments in social media-based teaching and learning are aligned with the learning objectives; the design includes clear instructions and guidance for learners to navigate and use the materials effectively, The design of social media-based teaching and learning materials considers various learning styles and preferences, and the instructional strategies used in social media-based teaching and learning are well-planned and effective.

**Table 3** Mean Standard Deviation and Statistic Significant of the Difference in Evaluation in the ADDIE Model

<b>Evaluation</b>	<b>X</b>	<b>S.D.</b>	<b>Significant</b>	<b>CV%</b>	<b>Level</b>
The social media-based teaching and learning materials are regularly evaluated and updated to meet the learners' needs	3.92	.935	Agree	23.85	1
Social media-based teaching and learning materials have a positive impact on learning outcomes and student engagement	4.24	.633	Agree	14.93	3
Feedback from learners and teachers is collected and used to improve the materials and instructional strategies	4.26	.624	Agree	14.65	5
Assessment results are analyzed to determine the effectiveness of the social media-based teaching and learning materials	4.35	.649	Agree	14.92	4
The evaluation process involves both formative and summative assessments to ensure continuous improvement	4.23	.648	Agree	15.32	2
<b>Total</b>	<b>4.20</b>	<b>.697</b>	Agree		

Table 3 presents the Evaluate component of the ADDIE model influencing social media-based teaching and learning in Chongqing Private Schools in Tangshan Preschool Teachers College. This analysis, evaluated using the coefficient of variation, maintains an agreed stance. The social media-based teaching and learning materials are regularly evaluated and updated to meet the learners' needs, the evaluation process involves both formative and summative assessments to ensure continuous improvement, Social media-based teaching and learning materials have a positive impact on learning outcomes and student engagement, Assessment results are analyzed to determine the effectiveness of the social media-based teaching and learning materials, and Feedback from learners and teachers is collected and used to improve the materials and instructional strategies.

## DISCUSSION & CONCLUSION

This research's discussion centers on the impact of the ADDIE model on social media-based teaching and learning at a university in Chongqing Private Schools in Tangshan Preschool Teachers College. The results indicate that the Development aspect of the ADDIE model significantly influences student satisfaction, while other components may have less of an effect. Moreover, no considerable differences were found in the efficacy of social media-based teaching and learning concerning gender and age groups.

These findings correspond with earlier studies that have emphasized the significance of the development stage in instructional design (Branch & Dousay, 2015). The development stage entails the creation and refinement of learning materials, the integration of multimedia components, and ensuring content relevance to learning objectives (Molenda, 2015). The positive influence of the Development component on student satisfaction in this study implies that learners appreciate high-quality, engaging, and easily accessible materials in social media-based teaching and learning environments.

Nonetheless, the limited impact of other ADDIE components on student satisfaction in this study contrasts with some existing research. For example, the analysis phase, which encompasses understanding learners' needs and traits, has been deemed vital for creating effective instructional materials (Gustafson & Branch, 2002). Likewise, implementation and evaluation phases are considered critical for successful instructional design since they involve the practical use of learning materials and their ongoing enhancement (Reiser & Dempsey, 2018). The weak associations between these components and student satisfaction in this research might be attributed to the specific context of social media-based teaching and learning or potential research design limitations.

The lack of significant differences in the effectiveness of social media-based teaching and learning among genders and age groups in this study aligns with some research suggesting that gender and age may not be potent determinants of learning outcomes in technology-enhanced learning settings (Ritzhaupt, Poling, Frey, & Johnson, 2014). However, it is crucial to acknowledge that other demographic factors, such as socioeconomic status, cultural background, or prior experience with technology, could impact the effectiveness of social media-based teaching and learning (Li & Kirkup, 2007).

In conclusion, this research adds to the understanding of the ADDIE model's role in social media-based teaching and learning, particularly emphasizing the Development component's importance for student satisfaction.

The following suggestions are proposed for future research in the context of social media-based teaching and learning:

- 1) Investigate the influence of other demographic factors: As this study found no significant differences across gender and age groups, future research should explore the impact of other demographic factors, such as socioeconomic status, cultural background, or prior experience with technology, on the effectiveness of social media-based teaching and learning.
- 2) Examine the role of individual ADDIE components: Given the limited influence of certain ADDIE components on student satisfaction found in this study, future research should delve deeper into understanding the specific roles of each component in social media-based teaching and learning, and how they interact with each other.
- 3) Assess different learning environments: This study focused on a university setting in Chongqing Private Schools in Tangshan Preschool Teachers College. Future research should examine the effectiveness of the ADDIE model in social media-based teaching and learning across various educational settings, including primary and secondary schools, vocational institutions, and adult education programs.
- 4) Employ a mixed-methods approach: To obtain a more comprehensive understanding of the impact of the ADDIE model on social media-based teaching and learning, future research could

employ a mixed-methods approach that combines quantitative and qualitative data collection and analysis techniques. This would allow for a more in-depth exploration of learners' experiences and perspectives on the use of social media in teaching and learning.

5) Evaluate the long-term effects of the ADDIE model: Future research should assess the long-term effects of the ADDIE model on student learning outcomes, engagement, and satisfaction in social media-based teaching and learning. This will provide insights into the sustainability and scalability of instructional design practices in technology-enhanced learning environments.

6) Explore alternative instructional design models: While this study focused on the ADDIE model, future research should investigate the effectiveness of other instructional design models, such as SAM (Successive Approximation Model), Kemp Design Model, or the 4C-ID Model, in social media-based teaching and learning to compare their relative strengths and weaknesses. By addressing these suggestions, future research can contribute to a more comprehensive understanding of the factors that influence the effectiveness of social media-based teaching and learning, as well as the role of instructional design models like ADDIE in improving educational outcomes.

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